

nw., 24th; 104, nw., 25th; 110, s., 26th; 112, nw., 27th; 112, nw., 28th.

Pike's Peak, Colorado, 52, sw., 1st; 70, w., 4th; 76, sw., 5th; 52, sw., 6th; 62, w., 8th; 74, sw., 9th; 52, sw., 10th; 74, w., 11th; 72, sw., 13th; 68, w., 14th; 62, sw., 15th; 64, w., 16th; 64, nw., 17th; 56, sw., 21st; 60, sw., 24th; 76, w., 25th; 86, nw., 26th; 74, n., 27th.

Dodge City, Kansas, 51, sw. and nw., 17th.

Fort Elliott, Texas, 52, w., 17th.

Columbus, Ohio, 54, w., 11th.

Rochester, New York, 52, s. and sw., 27th.

Buffalo, New York, 60, sw., 18th and 19th; 61, sw., 26th, 27th, 28th.

Fort Maginnis, Montana, 68, nw., 13th; 52, w. 17th; 60, w., 28th.

Valentine, Nebraska, 51, nw., 25th.

Fort Canby, Washington Territory, 50, se., 10th; 52, s. 27th; 52, s., 28th.

Report of tornadoes for the month of February, 1887, by Lieut. John P. Finley, Signal Corps, U. S. Army, Assistant.

Place.	Date.	Time.	Direction.	Form of cloud.	Number of persons killed.	Number of persons wounded.	Width of path.	Number and kind of animals killed.	Number and kind of buildings destroyed.	Total valuation of property destroyed.	Authority.
							Feet.				
Kilbourne, Ohio a.....	10	7.20 a. m.	ne.	Column of smk.	None.	None.					Mrs. D. A. Knapp, Kilbourne, Ohio.
Neshannock and Mercer, Pennsylvania.....	11	11 a. m.	ne.				1,320 to 2,640			Very destructive.	J. Bridget, Neshannock, and John Albin, Mercer, Pennsylvania.
Huntingdon, Pennsylvania.....	11	About 12 m.	easterly						One large distillery, one large factory, several houses.	Many thousands of dollars.	New York "World," Feb. 12, 1887.
Tyrone, Pennsylvania.....	11	do	ne.							Very destructive.	G. J. Kellogg, Janesville, Wisconsin.
Greenburr, Pennsylvania.....	11	11 a. m.	ne.							do	G. J. Kellogg, Janesville, Wisconsin.
Tionesta, Pennsylvania.....	11	11 a. m.	ne.		None.	None.	Narrow		Worst storm since 1851.	do	S. H. Haslet, Tionesta, Pennsylvania.
Canton and Louisville, Ohio b.....	11	A. M.	easterly	Water-spout.	None.	Several	2,640			\$100,000	J. G. Sherman, Wakeman, Ohio, and New York "World," Feb. 12, 1887.
Akron, Ohio.....	11	A. M.	ne.		None.	None.	Very narrow		Many buildings; very destructive.		J. G. Sherman, Wakeman, Ohio.
Vanattasburg, Ohio.....	11	A. M.	ne.		None.	None.	do	Many sheep and cattle.	Many farm buildings; very destructive.		L. M. Heiston, Pleasantville, Ohio, and J. G. Sherman, Wakeman, Ohio.
Carroll and Lithopolis, Ohio c.....	11	7.45 a. m.	ne.		None.	Several	2,640 to 3,960		Many	Very destructive.	L. M. Heiston, Pleasantville, Ohio, and J. F. Stallsmith, Lithopolis, Ohio.
Centrebure, Ohio.....	11	8 a. m.	e.				Narrow			Destructive.	L. M. Heiston, Pleasantville, Ohio.
Lancaster, Ohio.....	11	9 a. m.	ne.				do			Very destructive.	L. M. Heiston, Pleasantville, Ohio.
Wellsville, Ohio.....	11	A. M.	ne.		None.	Several	do			do	J. G. Sherman, Wakeman, Ohio.
Mount Hor, Kentucky.....	11	6 p. m.	ne.	Funnel	None.	None.	2,640		Very destructive.		Dr. J. W. Jacobs, Mount Hor, Kentucky.
Factoryville, New York d.....	11	11.30 a. m.	e.	Funnel			150 to 1,720		Many	Very destructive.	J. P. Yates, Factoryville, New York.
Lowmanville and Wellsburg, New York e.	11	11.30 a. m.	easterly	Funnel	None.	Several	2,640			Many thousands of dollars.	J. B. Gassepie, Vandalla, New York, and New York "World," Feb. 12, 1887.
New Midway, Maryland.....	11	1.15 p. m.	ne.		None.	None.	Narrow		Several	Most violent storm ever visited this place in winter.	G. F. Smith, New Midway, Maryland.
Shelbyville, Indiana f.....	11	4 a. m.	ne.	Funnel							J. G. Kellogg, Janesville, Wisconsin.
Four miles north of Colorado Springs, Colorado g.	16	3 p. m.	easterly			Several	Narrow				Virgil Smith, Reed's Corner, New York.
Athens, Kansas.....	17	2 p. m.	easterly							Very destructive.	L. F. Davis, Athens, Kansas.
Cuthbert, and near Fort Gaines, Georgia.....	18	Afternoon	ne.	Funnel	Several	Several	1,320 to 2,640			Very destructive.	J. E. Willet, Macon, Georgia.
Near Oroville, California.....	21	Evening	ne.				40			do	New York "Tribune," Feb. 23, 1887.
Eatonton, Georgia h.....	26	4.15 p. m.	ne.	Funnel	Two.	Seven.	150 to 230			do	B. W. Hunt, Eatonton, Georgia, and "Macon Telegraph."
Near Worthville and Jackson, Georgia.....	26	4 p. m.	ne.	Funnel	None.	Several	600 to 1,320		Six houses and several barns.	do	H. T. Barnes, Worthville, Georgia.
Elk Creek, Kentucky.....	26	9 a. m.	ne.		None.	None.	Narrow			Most destructive for years.	Robert J. Jewell, Elk Creek, Kentucky.
Wallace Post Office, Louisiana i	26	11.50 a. m.	easterly		None.	Several	Very narrow		Very destructive.	\$15,000.	Geo. H. Tassin, Wallace, Louisiana.
Tyler Creek, West Virginia.....	26	5 p. m.	ne.		None.	None.		Many	Houses and barns.		F. M. Swain, Tyler Creek, West Virginia.

a The cloud appeared as a column of smoke rolling through the air quite near the ground, and at places touching the ground, tearing up trees, &c.
b The cloud approached with an ominous roar, like a train of cars. In the cemetery dozens of large marble monuments were prostrated. The roof of a large building was carried upward two hundred feet.

c Trees two feet in diameter broken off.

d The wind was accompanied by a dark cloud, so that it seemed like twilight as it passed over us, and in this streak there was a large white cloud like smoke, and somewhat illuminated, situated between the earth and the black cloud envelope. It moved with the destructive centre gyrating, bounding, bursting asunder, gathering together again and whirling.

e The force of the wind backed up the water in Chemung river, and raised a column of it high in the air, so that the bed of the river was nearly dry. The river at this place is five hundred feet wide and over twenty deep.

f Everybody in town was awakened by a whirling, twisting motion, and a sound like the explosion of a bomb, and complete demolition of a large brick barn.

g An express train consisting of six coaches, was blown from the track, also a freight train of twenty cars was derailed. When about two miles from the city a train of three coaches was blown from the track, and near Coma, on the same road, an express train was blown from a bridge.

h Cloud spout did not reach the ground but passed overhead in the air. About twenty minutes before the tornado, clouds were moving from all points to a common centre in the southwest.

i At Willow Bend, on the Mississippi river the force of the wind raised a column of water fifty feet high.

INLAND NAVIGATION.

STATE OF WATER IN RIVERS AND HARBORS.

Mississippi River.—Cairo, Illinois: from the 1st to 8th the river at this point was filled with heavy floating ice, closing navigation between Cairo, Illinois, and Saint Louis, Missouri. On the 3d the river was thirty-seven feet above low-water mark, and rising steadily. The lowlands, both north and south of the city, were submerged, and lumbermen and farmers were busy moving their property to higher ground. On the 5th

numerous landings between here and Paducah, Kentucky, were under water. The river reached the danger line, forty feet, on the night of the 6-7th. On the 7th the steamers "David R. Powell" and "Helena" attempted to push through the ice to Saint Louis, Missouri, but were forced to return. On the 8th navigation between the two cities was resumed, the steamboats "City of Providence" and "Baton Rouge" departed for Saint Louis, and were successful in pushing through the ice back of the city. From the 8th to the 16th large quantities of ice

passed down the river; on the 16th it became quite heavy and interfered to a considerable extent with the movements of the railroad transfer boats at Bird's Point, Missouri. The river rose steadily from the first to the last day of the month; on the 1st it was 34.4 feet above low-water mark; on the 28th, 47.2.

Keokuk, Iowa: the ice in the river remained frozen solid until the 10th, on that date high temperatures and heavy rain prevailed, and the ice in the river broke up and began moving down rapidly at 2 p. m. Ice moved down the river until the 14th; from the 14th until the 24th it was free of ice; from the latter date until the end of the month considerable newly formed ice moved down.

Saint Louis, Missouri: on the 1st, 2d, and 3d, the river was filled with heavy flowing ice; considerable ice passed down the river every day from the 3d until the end of the month. The water was at its lowest stage on the 6th; from that date it rose gradually until the 15th, when it was 17.8 feet above low-water mark.

At Saint Paul, Minnesota, La Crosse, Wisconsin, and Dubuque, Iowa, the river remained frozen over from the 1st to 28th.

Ohio River.—Pittsburg, Pennsylvania: the Ohio River rose steadily from the 1st to 12th, when it was 21.9 feet above low-water mark; from the 12th to the 24th it subsided slowly, and on the latter date was only 9.0 feet above low-water mark. The heavy rain of the 26th and 27th caused the river to rise rapidly, and at 2 p. m. of the 27th it was 21.4 feet above. When the water was at its height several coal barges were broken from their wharves and carried down the river; one was sunk; loss about \$4,000.

Cincinnati, Ohio: from the 1st of the month until the 5th the river rose steadily, attaining on the latter date a depth of 56.3 feet above low-water mark; from the 5th to the 10th it fell very slowly, but began rising again after the 10th, reaching on the 18th a height of 50.4 feet. From the 18th until the end of the month the river fell very slowly, or remained stationary.

Louisville, Kentucky: on the 1st, 2d, and 3d very heavy rain fell and the river rose rapidly until the 6th, when it was 32.6 feet above low-water mark; the flood remained nearly stationary until 2 p. m. of the 7th, when it began to fall slowly. On the 3d the water rose at the average rate of three inches per hour, and fears of a serious flood were entertained. On the 4th several houses in the lower part of the city were flooded. On the 28th the river at this point was again high, 30.6 feet, and still rising.

Missouri River.—Leavenworth, Kansas: the river at this point was frozen over from December 26, 1886, until the 17th of the present month, when the ice broke up and began floating down, doing no damage. On the afternoon of the 18th the river was clear of ice; from the 19th until the close of the month large quantities floated down.

Fort Buford, Dakota: the river remained frozen over from the 1st to 28th.

Omaha, Nebraska: river frozen from the 1st to 28th.

Red River.—Shreveport, Louisiana: the river at this point rose steadily from the 1st to 28th; on the latter date it was 15.6 feet above low-water mark. On the 14th it had become navigable as far as the principal river ports on the upper part of the river.

Lake Michigan.—Milwaukee, Wisconsin: the numerous rains and heavy gales of the month broke up the ice in the southern part of Lake Michigan to a considerable extent, and the line boats between the east and west shore ports were making their regular trips at the end of the month.

Lake Huron.—Alpena, Michigan: the lake at this point was frozen from the 1st to 28th.

Lake Superior.—Duluth, Minnesota: the lake at this point was frozen over from the 1st to 28th.

In the following table are shown the danger-points at the various river stations; the highest and lowest depths for February, 1887, with the dates of occurrence, and the monthly ranges:

Heights of rivers above low-water mark, February, 1887.
[Expressed in feet and tenths.]

Stations.	Danger-point on range.	Highest water.		Lowest water.		Monthly range.
		Date.	Height.	Date.	Height.	
<i>Red River:</i>						
Shreveport, Louisiana.....	29.9	28	15.6	8	4.6	11.0
<i>Arkansas River:</i>						
Fort Smith, Arkansas.....	22.0	16, 17	6.3	6	0.0	6.3
Little Rock, Arkansas.....	23.0	16	13.1	1	2.5	10.6
<i>Missouri River:</i>						
Yankton, Dakota.....	24.0					
Omaha, Nebraska.....	18.0					
Leavenworth, Kansas.....	20.0	28	6.5	18	5.0	1.5
<i>Mississippi River:</i>						
Saint Paul, Minnesota.....	14.5					
La Crosse, Wisconsin.....	24.0					
Dubuque, Iowa.....	16.0					
Davenport, Iowa.....	15.0					
Keokuk, Iowa.....	14.0	11	13.3	28	4.9	8.4
Saint Louis, Missouri.....	32.0	15	17.8	6	5.0	12.8
Chiro, Illinois.....	40.0	28	47.2	1	34.4	12.8
Memphis, Tennessee.....	34.0	26, 27, 28	35.6	1	24.4	11.2
Vicksburg, Mississippi.....	41.0	28	41.9	1	18.0	23.9
New Orleans, Louisiana.....	13.0	26	13.0	1	3.7	9.3
<i>Ohio River:</i>						
Pittsburg, Pennsylvania.....	22.0	12	21.9	24	9.0	12.9
Cincinnati, Ohio.....	50.0	5	56.3	2	41.0	15.3
Louisville, Kentucky.....	25.0	6, 7	32.6	2	19.8	12.8
<i>Cumberland River:</i>						
Nashville, Tennessee.....	40.0	28	43.7	14	13.5	30.2
<i>Tennessee River:</i>						
Knoxville, Tennessee.....		4	14.3	14	3.6	10.7
Chattanooga, Tennessee.....	33.0	28	27.3	14	8.6	18.7
<i>Monongahela River:</i>						
Pittsburg, Pennsylvania.....	29.0	12	21.9	24	9.0	12.9
<i>Savannah River:</i>						
Augusta, Georgia.....	32.0	22	17.8	14	7.0	10.8
<i>Mobile River:</i>						
Mobile, Alabama.....	26	16.6		12	14.8	1.8
<i>Sacramento River:</i>						
Red Bluff, California.....		12	18.3	1, 2, 3, 4	1.6	16.7
Sacramento, California.....		14	18.6	2, 3, 4	10.3	8.3
<i>Willamette River:</i>						
Portland, Oregon.....		1	15.8	18	1.4	14.4

a Frozen throughout the month.

b For 11 days.

FLOODS.

Evansville, Vanderburg county, Indiana: on the 1st, 2d, and 3d the Ohio River rose rapidly, covering the bottom lands and lower portion of several river towns in this county. On the 3d large portions of Knight and Union townships were under water, and the inhabitants driven into the second stories of their houses. The track of the Louisville, Evansville, and Saint Louis Railroad at Rockport was several feet under water. The effects of the flood were severely felt at the town of Enterprise, where the first floor of all the houses was flooded, and farmers in the vicinity lost considerable stock and corn.

Wheeling, West Virginia: on the 4th several of the rivers of West Virginia were above the danger point, and serious damage was done to the farming and lumber interests along the valleys of the Cheat, Big Sandy, Little and Great Kanawha, Elk, Monongahela, and other rivers. In the neighborhood of Elk River much fencing and lumber was carried off and railroad property injured; at Clarksburg the river was reported to have been higher than at any time since 1875; at Grafton the water was higher than at any other time during the past ten years, and many families were compelled to move to the upper stories of their houses. Railroad traffic in parts of the state was seriously interfered with by high water during the first half of the month.

Birmingham, New Haven county, Connecticut: during the first five or six days of the month an ice gorge was forming in the Housatonic River at Zoar Bridge, a town a few miles above this place, and on the 6th the rising water and floating ice had completely surrounded the dwellings on the banks of the river, isolating them from communication with dry land. Numerous barns, out-houses, and fences were floated from their foundations and carried down the river. A gorge formed on the 5th and 6th in the Connecticut River at Windsor Locks, the water forcing the ice up to a height of twenty feet.

Buffalo, New York: during the 7th and 8th a severe northeasterly gale prevailed, with high temperature, maximum on

the 8th, 54°.1, and heavy rain at intervals. The gale continued until 5 p. m. of the 9th. The high northeasterly winds raised the water of the lake to an unusual height, this, in conjunction with the heavy rain and high temperature, caused Buffalo Creek to overflow and submerge a portion of the lower part of the town, and forced a large number of families to vacate their homes. Thirty feet of the Buffalo, New York, and Philadelphia Railroad, and about the same space on the Nickle Plate Railroad, were washed out, causing a temporary suspension of travel. A number of vessels in winter quarters were compelled to change position.

Tiffin, Seneca county, Ohio: the Sandusky River was unusually high on and after the 8th, overflowing its banks in several places and doing some damage. The river was free of ice throughout the month.

Delavan, Walworth county, Wisconsin: much damage was done in this vicinity by high water, especially after the storms of the 7th and 8th. Turtle Creek, which rises near this station, in its course of about thirty-five miles wrecked a flour mill, two railroad bridges, and several wagon road bridges, entailing a loss of about \$10,000.

Rochester, New York: during the night of the 9-10th the Genesee River rose five and one-half feet, and on the morning of the 10th was one inch higher than it has been for several years. The tracks of the Erie Railroad were submerged and a number of cellars and basements flooded. Reports from Genesee state that considerable damage was done by the flood in that vicinity, but no more than is caused by the ordinary spring freshet. The tracks of the Erie Railroad were under water at Mount Morris for a short time, causing trains to run irregularly. Between Genesee and Dansville the river was twenty feet above low-water mark, and within two feet of the flooring of some of the bridges. From Fowlerville to Dansville, a distance of twenty-eight miles, the flats were entirely submerged. At Avon the flats for miles were flooded, and the road to the town of Cattaraugus for a distance of three miles was covered with water, making communication in that direction impossible. At the town of Lyons, in Wayne county, the flood in Clyde Creek, caused by heavy rains of the 10th and 11th and melting snow and ice, was reported to have been more extensive than any other that has occurred for many years. Thousands of acres of land were flooded, covering the wheat and rye crops with mud and debris. Many residences and business places in the lower part of the town were surrounded by water, and much damage done to property in cellars and basements.

Chicago, Illinois: on the night of the 9-10th the heavy ice that had been running in the South Branch of the Chicago River gorged and the water began rising rapidly. At the same time three gorges formed in the North Branch and remained immovable until the 11th, although repeated attempts were made to break up the ice by the use of dynamite. On the 10th the southwest and northwest portions of the city and the western side of the suburb of Lakeview were overflowed. At this time the waters of the North and South Branches of the Chicago River were from four to six feet above high-water mark, and all the flat prairie land back of the city was flooded. On the 11th the river was still rising slowly, doing considerable damage to property in cellars and basements, especially in the southwest portion of the city. During the afternoon the water in the North Branch began falling rapidly, but at midnight there were still large areas overflowed.

Wilkesbarre, Luzerne county, Pennsylvania: on the 10th the water of the Susquehanna River was twenty feet above low-water mark, and the flat land on the west side of the river was covered with water to a depth of three feet. In the afternoon a large ice gorge that had formed above the town began moving out, but gorged again at Coxton. On the same date a heavy gorge formed above Pittston. The gorge that formed in the Susquehanna below Port Deposit, Maryland, in January did not break up until after the 10th of February, although on that date the flood had subsided considerably. All of the lower

parts of the town, including the coal yards, were covered to a depth of several feet with water and ice from the 28th of January to the 11th of February. A large gorge five miles south of Columbia, Pennsylvania, broke up at 5.15 p. m. of the 10th and moved rapidly down the river, carrying away a wooden bridge at Conestoga Creek, and destroying other property.

Pittsburg, Pennsylvania: during the 10th the barometer fell rapidly, with rising temperature and southeasterly wind. At 5.45 p. m. a thunder-storm set in, accompanied from 6 to 8 p. m. by heavy rain. The heavy fall of rain did some damage to streets, and impeded traffic on several of the railroads entering this city.

Cairo, Illinois: on the 11th the river at this point was 43.9 feet above low-water mark, and rising steadily. Reports from the lowlands between this place and Memphis, Tennessee, state that many persons had been driven to the highlands by the rising water. River men arriving on the 13th stated that the lower part of the town of Hickman, Kentucky, was submerged, and boats were landing above the town.

Los Angeles, California: heavy rain fell on the 12th, 13th, and until noon of the 14th; light rain fell from noon until 9 p. m. of the 14th, when it began falling heavily, accompanied by high south wind; at 9.57 p. m. the storm was accompanied by thunder and lightning, with hail. During the storm a barn in the southwestern part of the town was struck by lightning. The observer at this place states that he measured the precipitation several times during the day and found that 3.00 inches fell between 12.07 and 9 p. m.; 0.40 inch was found in the gauge at 4.30 p. m., and 1.50 inches at 9 p. m.; 2.56 inches fell between 4.30 and 9 p. m., the greater part of this fell from 6 to 8.30 p. m. This unusually heavy fall of rain flooded the streets, many of them becoming impassable, and street-car travel was generally suspended on account of damaged tracks. The river rose rapidly from the large volume of water poured into it from the neighboring mountains and hills, and by midnight had become a rapid torrent, damaging bridges and flooding the lowlands and the greater part of the city. The storm caused numerous washouts on the railroads both to the east and north, and telegraph poles were prostrated in many places. A severe southeasterly gale prevailed off the coast, wrecking two vessels at San Pedro.

Nashville, Tennessee: on the 14th the Cumberland River was 13.5 feet above low-water mark; from that date until the end of the month the water rose steadily, measuring on the 28th 43.7 feet above. The first floors of over three hundred small houses in the lower part of the city were submerged, and many families were compelled to move to higher ground. It is reported that many square miles of farming land along the river were overflowed and large quantities of fencing carried away. The wheat crop in the overflowed districts sustained serious injury.

Grand Haven, Michigan: during the 14th warm weather and light rain prevailed, causing the ice in the Grand River to break up and move down rapidly. Numerous ice gorges formed in the river at various places and flooded large areas of land along its banks. A large gorge formed below Lyons on the morning of the 11th, causing the river to overflow its banks and flow through the streets of the town; in some places the water was four feet deep. Twenty buildings were carried away and many more moved from their foundations or otherwise damaged by floating ice and timber.

Memphis, Tennessee: at the beginning of the month the river was 24.4 feet above low-water mark, and rising steadily, which it continued to do until the end of the month, when it was 35.6 feet above, having reached the danger line, 34 feet, on the 16th. The damages caused by this high stage of water, at the end of the month were as follows: In the upper portion of the city four lumber yards were partially inundated, damaging property to the extent of about \$6,000; two sawmills had ceased operations on account of the high water by which they were surrounded; in the same part of the city, and along the bayou, one hundred and twenty-five houses were partly sub-

Table of miscellaneous meteorological data for February, 1887—Signal Service observations.

Stations.	Elevation above sea-level.	Atmospheric pressure (in inches and hundredths).						Temperature of the air (in degrees Fahrenheit).										Winds.																
		Mean actual barometer.	Departure from normal.	Mean reduced barometer.	Extremes.				Monthly mean.	Departure from normal.	Extremes.				Monthly range.	Daily ranges.				Mean rel. humidity.	Mean dew-point.	Precipitation.	Departure from normal.	Total movement.	Prevailing direction.	Maximum velocity.								
					Highest barometer.	Date.	Lowest barometer.	Monthly range of barometer.			Max.	Date.	Mean max.	Min.		Date.	Mean min.	Greatest.	Date.							Least.	Date.	Miles p. h.	Direction.	Date.	No. of rainy days.	No. of cloudy days.	No. of fair days.	No. of clear days.
New England.																																		
Eastport	53	30.05	.....	30.14	30.89	.....	29.26	27	1.83	20.6	-1.6	47.2	9	29.6	-4.2	11.8	51.4	29.2	4	8.1	12	73.6	13.2	3.74	+0.33	8,614	nw.	47	se.	19	15	11	8	9
Portland	99	30.03	+ .11	30.14	31.01	.....	29.26	27	1.83	22.2	-3.4	41.9	19	29.7	-2.5	14.7	44.4	31.5	26	4.5	2	76.4	15.3	5.73	+2.32	5,467	w.	28	nw.	4	13	9	11	8
Mount Washington	6,279	23.45	.....	30.06	31.01	.....	28.78	11	2.24	7.0	+0.7	33.2	8	17.3	-26.0	13	2.6	59.2	38.7	9	6.2	93.9	5.6	1.59	-2.74	23,610	nw.	120	nw.	4	16	5	9	14
Boston	124	30.03	+ .09	30.16	30.93	.....	29.21	11	1.72	28.9	+1.2	47.6	15	36.5	5.2	20.9	42.4	24.6	15	3.6	22	66.3	19.2	3.69	+0.16	9,456	w.	52	nw.	11	14	11	11	6
Block Island	27	30.16	.....	30.18	30.94	.....	29.21	11	1.73	32.3	+1.3	54.1	19	40.5	11.8	26.8	42.3	27.0	12	5.3	13	85.9	28.6	7.02	+0.61	13,120	nw.	52	nw.	27	15	8	13	7
Narragansett Pier	107	30.08	.....	30.19	30.94	.....	29.20	11	1.74	31.0	.....	51.0	19	39.0	6.0	23.1	45.0	.....	.....	.....	.....	.....	.....	6.28	+1.67	.....	.....	.....	.....	.....	.....	.....	.....
New Haven	47	30.14	+ .08	30.18	30.94	.....	29.20	11	1.74	29.8	+0.9	53.0	11	37.7	8.0	23.4	45.0	25.7	12	6.4	1	72.1	21.4	6.22	+1.85	6,575	ne.	33	w.	11	16	11	11	6
New London	47	30.14	+ .08	30.18	30.92	.....	29.19	11	1.73	31.5	+2.2	53.6	19	39.3	9.8	24.5	43.8	30.3	12	7.9	1	78.1	25.3	5.88	+1.70	5,018	nw.	40	w.	18	16	6	15	7
Nantucket	14	30.16	.....	.....	.....	.....	.....	.....	.....	33.2	.....	52.1	19	40.2	14.4	27.3	37.7	26.4	12	4.6	23	83.6	28.7	3.97	.....	9,304	nw.	40	nw.	12	14	7	15	6
Edgartown	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.4	.....	49.7	19	38.7	9.8	22.0	39.9	23.9	12	4.3	21	.....	.....	4.08	.....	.....	.....	.....	.....	.....	.....	.....	.....
Vineyard Haven	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.0	.....	56.2	12	41.3	9.1	20.8	47.1	.....	.....	.....	.....	.....	.....	4.83	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mid. Atlantic States.																																		
Albany	85	30.13	+ .10	30.22	31.09	.....	29.22	11	1.87	25.2	+0.4	43.0	10	33.9	2.3	16.6	40.7	29.6	26	9.4	19	76.8	18.7	2.86	+0.24	5,421	nw.	32	w.	11	15	14	8	6
New York City	158	30.13	+ .10	30.20	30.94	.....	29.26	11	1.68	33.7	+2.8	63.0	11	40.5	16.6	27.3	46.4	23.0	12	6.9	5	68.1	23.5	5.26	+1.55	7,190	nw.	46	nw.	12	14	12	9	7
Philadelphia	117	30.13	+ .10	30.23	30.94	.....	29.36	11	1.58	30.1	+2.8	65.6	11	43.4	16.6	29.1	47.6	21	14	7.2	6	66.6	23.0	4.43	+1.15	7,582	nw.	46	nw.	11	17	12	10	6
Atlantic City	13	30.21	+ .10	30.21	30.95	.....	29.34	11	1.60	36.6	+3.5	67.8	11	43.9	16.7	30.9	41.1	28.1	12	5.6	8	82.8	31.5	4.17	+0.71	7,223	sw.	32	se.	26	15	6	14	8
Cape Henlopen	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.0	.....	62.4	19	47.6	14.6	36.4	47.8	25.7	13	1.8	24	.....	.....	3.57	+0.87	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore	45	30.18	+ .07	30.21	30.90	.....	29.38	11	1.52	38.2	+1.6	72.2	11	46.5	20.9	32.2	51.3	28.0	11	6.1	3	70.5	28.1	4.69	+1.19	4,407	nw.	34	nw.	11	16	12	11	5
Ocean City	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.8	.....	68.6	11	49.4	16.1	34.2	52.5	27.1	12	5.6	8	.....	.....	3.74	+0.14	.....	.....	.....	.....	.....	.....	.....	.....
Washington City	106	30.13	+ .09	30.23	30.90	.....	29.41	11	1.49	38.9	+3.3	73.0	11	47.7	18.6	31.8	54.4	26.0	11	7.7	3	70.6	28.6	3.42	+0.12	4,302	nw.	33	nw.	11	13	9	14	5
Cape Henry	16	.....	.....	.....	.....	.....	.....	.....	.....	48.5	+0.5	75.7	11	57.5	27.5	35.5	48.2	29.3	12	3.7	.....	.....	.....	2.14	+1.14	.....	.....	.....	.....	.....	.....	.....	.....
Chincoteague	8	.....	.....	.....	.....	.....	.....	.....	.....	41.9	+4.9	71.4	11	50.9	23.1	35.2	48.3	28.1	12	6.3	15	79.8	35.5	4.58	+0.58	9,521	se.	46	nw.	4	15	7	17	4
Lynchburg	652	29.53	+ .10	30.22	30.89	.....	29.50	11	1.33	43.7	+3.8	72.2	11	54.1	20.0	35.4	52.2	29.1	12	5.5	21	71.7	33.9	3.51	+0.04	3,004	sw.	24	nw.	28	11	14	12	2
Norfolk	30	30.21	+ .09	30.22	30.82	.....	29.50	11	1.32	46.7	+4.0	75.0	11	57.7	26.8	39.4	48.2	31.3	26	7.8	13	77.1	38.7	2.61	+1.29	5,123	sw.	36	sw.	11	13	13	13	2
South Atlantic States.																																		
Charlotte	808	29.38	+ .11	30.23	30.76	.....	29.61	18	1.15	48.5	+3.4	70.8	11	58.1	25.7	40.8	45.1	27.5	17	5.3	21	78.8	41.4	4.81	+0.41	4,369	sw.	28	w.	11	16	13	12	3
Hatteras	12	30.26	+ .13	30.25	30.72	.....	29.75	26	0.97	51.3	+4.9	66.6	18	58.8	33.2	45.5	33.4	22.2	17	5.9	13	84.2	46.3	1.37	+3.57	9,011	n.	39	nw.	27	8	10	9	9
Kitty Hawk	9	.....	.....	.....	.....	.....	.....	.....	.....	50.0	+7.3	75.4	11	59.2	29.1	42.0	46.3	34.5	12	5.1	2	.....	.....	4.08	+0.07	.....	.....	.....	.....	.....	.....	.....	.....
Raleigh	439	29.79	.....	30.27	30.82	.....	29.67	18	1.15	47.5	.....	72.0	1	57.2	21.8	41.0	50.2	27.0	1	5.2	21	79.1	40.4	4.97	.....	4,680	ne.	.....	.....	.....	.....	.....	.....	.....
Smithville	34	.....	.....	.....	.....	.....	.....	.....	.....	53.7	+4.8	68.9	4	59.7	31.0	47.7	37.9	21.0	14	3.0	19	.....	.....	1.83	+1.04	.....	.....	.....	.....	.....	.....	.....	.....
Wash Woods	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.4	.....	72.0	11	56.6	30.0	40.3	42.0	35.0	12	5.0	13	.....	.....	3.98	+0.01	.....	.....	.....	.....	.....	.....	.....	.....
Wilmington	52	30.19	+ .09	30.22	30.69	.....	29.74	26	0.95	54.7	+5.4	75.0	9	64.4	27.2	45.3	47.8	31.3	27	7.1	23	80.7	48.5	1.61	+1.70	5,143	sw.	32	sw.	26	13	9	11	8
Charleston	52	30.20	+ .09	30.22	30.62	.....	29.75	18	0.87	56.7	+4.3	80.4	9	65.9	33.9	50.1	46.5	29.6	4	5.7	5	84.0	51.3	2.29	+1.30	5,783	sw.	38	se.	4	12	12	9	7
Augusta	183	30.07	+ .08	30.23	30.70	.....	29.71	18	0.99	54.8	+4.6	76.9	3	65.1	30.6	46.5	46.3	33.9	17	5.7	23	83.6	49.2	2.95	+0.84	2,958	sw.	24	sw.	11	14	10	15	3
Savannah	87	30.17	+ .09	30.23	30.63	.....	29.80	18	0.82	58.7	+4.6	79.7	9	68.2	34.9	51.5	44.8	28.0	4	9.2	5	86.0	51.3	3.63	+0.54	5,222	ne.	32	sw.	4	14	10	10	8
Jacksonville	43	30.20	+ .09	30.23	30.55	.....	29.85	18	0.70	64.4	+6.5	83.6	20	75.3	38.2	57.0	45.4	25.8	27	9.6	13	83.5	58.5	5.04	+3.06	3,559	ne.	32	sw.	26	3	6	5	17
Florida Peninsula.																																		
Cedar Keys	22	30.24	+ .11	30.22	30.50	.....	29.90	18	0.59	65.8	+5.7	76.8	1	72.8	38.9	60.3	37.9	24.0	27	5.4	19	87.0	61.5	0.19	+3.10	6,453	se.	32	nw.	27	4	2	13	13
Key West	22	30.19	+ .08	30.16	30.36	.....	29.97	18	0.39	73.4	+2.1	81.0	22	78.5	57.6	69.7	34.4	13.5	27	6.4	20	78.7	66.2	0.90	+0.96	6,650	se.	35	n.	27	6	1	14	13
Sanford	25	30.20	.....	30.19	30.45	.....	29.87	18	0.58	67.9	+7.5	84.7	20	77.7	44.1	60.6	40.6	22.1	1	.....	.....	.....	.....	1.10	+1.28	4,135	se.	31	nw.	28	7	4	10	14
Eastern Gulf States.																																		
Atlanta	1,129	29.05	+ .08	30.22	30.66	.....	29.69	18	0.97	52.7	+5.8	73.8	18	60.6	28.9	45.2	44.9	27.0	28	3.1	23	86.4	48.4	3.74	+1.46	7,560	w.	38	w.	27	16	10	14	4
Pensacola	30	30.18	+ .06	30.17	30.51	.....	29.60	18	0.71	63.3	+7.1	75.5	23	68.4	38.5	58.3	37.0	21	13	3.2	1													

Table of miscellaneous meteorological data for February, 1887—Signal Service observations—Continued.

Stations.	Elevation above sea-level.	Atmospheric pressure (in inches and hundredths).					Temperature of the air (in degrees Fahrenheit).												Winds.													
		Mean actual barometer.	Departure from normal.	Mean reduced barometer.	Extremes.			Monthly mean.	Departure from normal.	Extremes.			Monthly range.	Daily ranges.			Mean rel. humidity.	Mean dew-point.	Precipitation.	Departure from normal.	Total movement.	Prevailing direction.	Maximum velocity.									
					Highest barometer.	Date.	Lowest barometer.			Max.	Date.	Min.		Greatest.	Date.	Least.							Miles p. h.	Direction.	Date.							
					No. of rainy days.	No. of cloudy days.	No. of fair days.			No. of clear days.																						
Upper Miss. Valley.																																
Saint Paul.	831	29.21	+ .11	30.17	30.99	29.35	18.1.64	9.7	- 8.3	42.8	25	21.0	- 26.7	1	2.3	69.5	48.4	13	11.3	280.0	4.7	0.89	+ 0.02	4,288	w.	26	nw.	26	10	5	16	7
La Crosse.	744	29.34	+ .12	30.13	30.98	29.23	18.1.75	16.0	- 5.6	44.5	8	27.2	- 18.6	4	4.6	63.1	43.9	13	6.0	238.3	11.9	1.36	+ 0.25	5,263	n.	39	nw.	26	13	13	9	8
Davenport.	616	29.26	+ .06	30.14	30.90	29.12	17.1.78	18.0	- 2.9	55.2	7	35.8	- 9.8	4	14.9	65.0	34.5	8	7.0	218.3	19.0	4.87	+ 3.32	6,295	nw.	34	w.	26	15	12	8	6
Des Moines.	656	29.21	+ .07	30.17	30.94	29.13	17.1.81	19.4	- 4.8	53.6	28	29.9	- 15.0	4	9.5	68.6	40.4	8	7.0	283.1	15.1	1.65	+ 0.23	5,418	nw.	27	dw.	26	14	11	11	8
Dubuque.	666	29.41	+ .08	30.16	30.94	29.18	18.1.76	19.4	- 3.2	50.6	8	30.0	- 12.5	4	11.0	63.1	36.8	13	4.4	237.8	14.2	3.56	+ 2.06	2,931	n.	25	dw.	26	11	11	9	6
Keokuk.	618	29.48	+ .08	30.16	30.90	29.11	17.1.79	29.5	+ 0.1	60.4	7	39.2	- 6.9	4	21.6	67.3	30.2	8	4.2	232.9	24.8	5.19	+ 3.56	7,163	nw.	36	w.	18	12	10	12	4
Cairo.	359	29.79	+ .03	30.16	30.64	29.34	17.1.29	43.1	+ 3.3	72.4	10	50.4	- 11.5	4	35.3	60.9	40.4	11	3.8	157.3	34.6	4.60	+ 0.38	7,291	n.	40	w.	18	16	10	14	4
Springfield.	644	29.46	+ .05	30.16	30.81	29.22	17.1.59	35.3	+ 3.6	64.8	10	45.1	- 0.3	4	25.8	64.5	35.8	11	9.9	157.2	27.5	4.26	+ 0.20	7,413	n.	36	w.	26	13	10	13	5
Saint Louis.	571	29.53	+ .04	30.14	30.75	29.20	17.1.55	40.6	+ 5.1	74.1	10	50.3	- 3.9	4	31.3	70.2	47.1	11	7.3	207.2	30.8	3.68	+ 0.78	7,611	n.	45	dw.	11	13	14	9	5
Missouri Valley.																																
Jamar.	1,028	29.26	+ .06	30.17	30.82	29.08	17.1.74	28.9	- 2.6	68.4	28	38.5	- 6.0	3	20.6	74.4	43.7	10	4.1	275.0	21.6	1.94	+ 0.47	5,540	n.	30	nw.	18	15	9	13	6
Leavenworth.	842	29.26	+ .06	30.17	30.82	29.08	17.1.74	28.9	- 2.6	68.4	28	38.5	- 6.0	3	20.6	74.4	43.7	10	4.1	275.0	21.6	1.94	+ 0.47	5,540	n.	30	nw.	18	15	9	13	6
Omaha.	1,113	28.97	+ .07	30.20	30.93	29.01	17.1.92	18.2	- 8.2	59.0	28	29.6	- 15.5	4	8.9	74.5	39.8	10	8.2	681.1	13.2	1.00	+ 0.20	5,424	n.	36	nw.	13	10	9	7	12
Valentine.	2,604	27.31	+ .03	30.15	30.83	29.18	17.1.64	12.8	- 14.0	50.6	16	26.4	- 21.6	3	1.4	77.6	49.0	12	12.2	467.8	3.6	0.41	+ 0.06	8,890	n.	63	n.	17	4	7	5	16
Huron.	1,307	28.73	+ .10	30.22	30.96	29.44	17.1.52	3.6	- 10.2	47.0	28	14.4	- 30.3	1	7.2	77.3	43.9	9	5.5	378.8	1.7	1.11	+ 0.83	6,015	dw.	33	nw.	18	10	9	8	11
Yankton.	1,334	28.78	+ .05	30.18	30.92	29.07	17.1.84	11.3	- 8.6	50.4	28	22.1	- 22.4	1	0.5	72.8	30.8	9	6.1	374.0	4.5	0.64	+ 0.18	6,359	nw.	40	nw.	9	6	7	13	8
Northern slope.																																
Fort Assinaboine.	2,690	27.19	+ .14	30.22	30.95	29.60	13.1.34	- 2.6	- 19.5	46.1	27	6.4	- 55.4	3	- 16.5	2	38.3	25	11.6	261.2	- 12.4	0.05	- 0.56	7,170	sw.	52	sw.	28	2	8	11	9
Fort Custer.	3,040	27.19	+ .14	30.22	30.95	29.60	13.1.34	- 2.6	- 19.5	46.1	27	6.4	- 55.4	3	- 16.5	2	38.3	25	11.6	261.2	- 12.4	0.05	- 0.56	7,170	sw.	52	sw.	28	2	8	11	9
Fort Maginnis.	4,320	25.42	+ .03	30.03	30.83	29.26	13.1.57	8.9	- 11.3	56.1	28	19.1	- 42.0	2	- 3.6	98.1	46.6	7	11.1	367.1	- 0.4	0.94	- 0.12	7,825	nw.	84	nw.	14	6	7	14	7
Helen.	4,069	25.72	+ .04	30.11	30.67	29.41	13.1.26	5.0	- 18.6	61.0	28	13.8	- 40.5	2	- 5.0	2	39.9	13	5.7	187.8	- 0.4	0.61	- 0.11	3,282	nw.	30	w.	25	13	9	13	6
Poplar River.	2,002	27.92	+ .03	30.23	30.96	29.53	13.1.43	- 8.5	- 12.6	43.0	28	2.7	- 44.8	3	- 20.6	87.8	50.6	27	9.2	477.6	- 14.6	0.58	+ 0.12	3,231	w.	40	nw.	9	7	2	10	16
Deadwood.	4,600	25.23	+ .02	30.10	30.79	29.41	13.1.39	15.4	- 9.1	57.9	28	2.7	- 49.0	3	4.7	86.9	49.8	6	8.6	575.8	8.7	0.74	- 0.52	4,397	sw.	32	sw.	13	7	1	10	17
Ohayenne.	6,105	25.23	+ .02	30.10	30.79	29.41	13.1.39	15.4	- 9.1	57.9	28	2.7	- 49.0	3	4.7	86.9	49.8	6	8.6	575.8	8.7	0.74	- 0.52	4,397	sw.	32	sw.	13	7	1	10	17
Fort Laramie.	2,841	27.07	+ .03	30.14	30.73	29.04	17.1.68	19.3	- 7.1	59.0	16	32.1	- 16.1	3	8.4	75.1	41.0	8	7.4	217.5	12.8	0.49	+ 0.14	6,507	sw.	52	nw.	17	6	6	8	14
North Platte.	2,841	27.07	+ .03	30.14	30.73	29.04	17.1.68	19.3	- 7.1	59.0	16	32.1	- 16.1	3	8.4	75.1	41.0	8	7.4	217.5	12.8	0.49	+ 0.14	6,507	sw.	52	nw.	17	6	6	8	14
Middle slope.																																
Denver.	5,294	24.61	+ .08	29.95	30.39	29.18	17.1.21	32.0	- 0.4	70.9	28	46.8	- 2.6	2	16.7	73.5	52.0	2	15.9	451.2	13.3	0.30	- 0.20	5,848	n.	64	w.	17	5	1	9	18
Elke's Peak.	4,134	24.61	+ .08	29.95	30.39	29.18	17.1.21	32.0	- 0.4	70.9	28	46.8	- 2.6	2	16.7	73.5	52.0	2	15.9	451.2	13.3	0.30	- 0.20	5,848	n.	64	w.	17	5	1	9	18
Las Animas.	3,899	25.97	+ .06	29.99	30.57	29.24	17.1.33	32.5	+ 3.3	76.0	28	51.0	- 23.0	25	2.3	49.9	27.4	26	5.0	183.2	- 0.4	0.46	- 0.99	21,002	sw.	86	nw.	26	13	2	13	13
Concordia.	1,384	27.42	+ .02	30.13	30.74	29.24	17.1.50	30.5	- 2.3	75.0	25	43.8	- 8.2	3	18.7	83.2	46.2	28	4.0	216.5	18.2	0.53	- 0.00	7,804	sw.	52	nw.	18	8	8	11	9
Dodge City.	2,593	27.42	+ .02	30.13	30.74	29.24	17.1.50	30.5	- 2.3	75.0	25	43.8	- 8.2	3	18.7	83.2	46.2	28	4.0	216.5	18.2	0.53	- 0.00	7,804	sw.	52	nw.	18	8	8	11	9
Fort Reno.	4,300	25.42	+ .03	30.03	30.83	29.26	13.1.57	8.9	- 11.3	56.1	28	19.1	- 42.0	2	- 3.6	98.1	46.6	7	11.1	367.1	- 0.4	0.94	- 0.12	7,825	nw.	84	nw.	14	6	7	14	7
Fort Supply.	2,700	27.07	+ .03	30.14	30.73	29.04	17.1.68	19.3	- 7.1	59.0	16	32.1	- 16.1	3	8.4	75.1	41.0	8	7.4	217.5	12.8	0.49	+ 0.14	6,507	sw.	52	nw.	17	6	6	8	14
Fort Elliott.	2,700	27.07	+ .03	30.14	30.73	29.04	17.1.68	19.3	- 7.1	59.0	16	32.1	- 16.1	3	8.4	75.1	41.0	8	7.4	217.5	12.8	0.49	+ 0.14	6,507	sw.	52	nw.	17	6	6	8	14
Southern slope.																																
Fort Hill.	1,200	28.88	+ .03	30.14	30.64	29.42	17.1.22	42.5	+ 0.8	71.6	28	54.0	- 8.1	4	31.5	63.5	47.0	11	5.1	136.8	30.5	0.82	- 0.81	8,954	n.	50	sw.	17	5	7	7	14
Abilene.	1,748	28.29	+ .02	30.10	30.56	29.62	17.0.94	48.9	+ 0.9	81.4	16	63.0	- 10.8	4	37.6	70.6	49.7	3	9.7	125.7	30.4	1.21	+ 0.60	9,284	nw.	46	sw.	26	6	9	10	9
Fort Davis.	4,928	25.20	+ .02	30.01	30.55	29.67	19.0.88	51.9	+ 3.7	81.7	10	63.0	- 10.8	4	37.6	70.6	49.7	3	9.7	125.7	30.4	1.21	+ 0.60	9,284	nw.	46	sw.	26	6	9	10	9
Fort Stanton.	6,150	23.92	+ .02	29.88	30.37	29.50	19.0.88	39.4	+ 1.4	67.0	28	53.5	- 12.5	24	26.6	54.5	43.7	24	10.7	759.9	24.6	0.11	- 0.29	7,190	w.	44	w.	1	3	4	5	19
Southern plateau.																																
El Paso.	3,764	26.28	+ .04	30.04	30.54	29.71	18.0.83	50.2	- 0.0	71.5	1	63.6	- 20.6	27	35.7	50.9	46.2	28	5.0	1148.9	29.9	0.15	- 0.29	3,075	sw.	21	sw.	17	2	3	4	21
Lave.	3,764	26.28	+ .04	30.04	30.54	29.71	18.0.83	50.2	- 0.0	71.5	1	63.6	- 20.6	27	35.7	50.9	46.2	28	5.0	1148.9	29.9	0.15	- 0.29	3,075	sw.	21	sw.	17	2	3	4	21
Santa Fe.	7,026	23.20	+ .02	30.01	30.55	29.64	19.0.91	33.9																								

Meteorological record of voluntary observers and Army post surgeons, February, 1887.

The maximum and minimum temperatures at stations marked thus (*) are from readings of other than standard instruments.

Stations.	Temperature.			Precipitation.	Stations.	Temperature.			Precipitation.
	Maximum.	Minimum.	Mean.			Maximum.	Minimum.	Mean.	
<i>Alabama.</i>				<i>Inches.</i>	<i>Indiana—Cont'd.</i>				<i>Inches.</i>
Greensborough	79	34	59.4	4.90	La Grange	54	1	27.4	6.51
Livingston	80	32	59.0	4.25	Logansport*	56	6	32.9	5.15
Mount Vernon B'ks.	81	34	63.6	6.93	Mauzy	63	8	32.6	6.28
<i>Arizona.</i>					Sunman*	62	8	35.3	7.45
Huachuca, Fort	69	16		1.30	Vevay	70	16	41.3	8.28
McDowell, Fort	86	23	51.8	0.86	<i>Iowa.</i>				
Mojave, Fort	80	29	52.6	1.44	Bancroft	40	-22	11.6	1.49
<i>Arkansas.</i>					Cedar Rapids a	50	-10	16.0	4.67
Hot Springs	77	23	49.2	5.36	Cedar Rapids b	49	-15	19.0	
Lead Hill	78	14	43.3	4.08	Clinton	52	-13	23.1	4.20
<i>California.</i>					Cresco	39	-25	13.1	1.88
Angel Island	76	-33	47.0	8.77	Des Moines	56	-24	18.8	
Benicia Barracks	61	33	45.0	7.17	Fort Madison	55	-10		5.10
Bidwell, Fort	44	1	25.8	3.87	Independence*	42	-16	18.1	2.35
Cahuenga*	85	35	48.5	8.72	Logan	60	-18	18.6	0.70
Fall Brook	85	35	48.5	5.05	Monticello*	50	-21	19.5	4.62
Gaston, Fort				9.96	Mount Vernon	47	-17	21.6	
Hydesville				8.48	Muscataine	48	-11	23.4	4.12
Mason, Fort	68	36	47.8	8.80	Oskaloosa a*	54	-16	20.2	3.61
Nicolaus	71	30	44.8	6.75	Oskaloosa b*	50	0		
Oakland	66	31	46.1	7.83	West Union	41	-22	16.8	1.62
Oroville	70	32	47.3	8.93	<i>Kansas.</i>				
Presidio of San F	67	34	45.3	7.32	Allison	74	-13	25.0	0.85
Princeton	67	28	43.9	5.67	El Dorado	73	-3	32.4	0.50
Riverside*	84	29	49.7	2.85	Emporia	71	-8	31.0	0.61
Sacramento	65	24	43.7	5.93	Globe	64	-10	29.4	1.59
Salinas	72	29	43.8	4.73	Hays, Fort	69	-15	25.7	0.70
Santa Barbara	79	37	50.4	8.64	Independence	73	0	35.2	1.55
Santa Maria	75	30	47.0	5.95	Manhattan	64	-10	27.0	0.75
Susanville	45	-4	27.4	5.57	Ninnescah	78	-9	31.1	
<i>Colorado.</i>					Riley, Fort	68	-10	28.0	0.36
Collins, Fort	70	-8	23.7	0.23	Salina*	75	-10	30.2	1.08
Salida	59	7		trace	Wakefield	64	-8	29.3	1.45
<i>Connecticut.</i>					Wellington	73	-3	35.0	1.18
Bethel	47	2	27.5	4.50	Wyandotte	69	-4	30.6	2.05
Hartford	51	3	27.8	5.67	<i>Kentucky.</i>				
Southington	51	3	27.8	5.18	Harper's Ferry	68	16	42.8	4.60
Voluntown	54	2		6.20	<i>Louisiana.</i>				
<i>Dakota.</i>					Grand Coteau	81	40	64.6	2.37
Abr. Lincoln, Fort	37	-36	-11.2	0.40	Liberty Hill				2.37
Henry	37	-29	2.4	0.39	<i>Maine.</i>				
Highmore	36	-30	2.8	0.65	Cornish	42	-10	19.1	5.27
Meade, Fort	71	37	15.7	0.20	Gardiner	45	-21	19.8	5.62
Parkaton	38	-22	6.4	0.20	Orono*	45	-25	17.8	5.89
Pembina, Fort	33	-40	-4.2	4.10	<i>Maryland.</i>				
Bandall, Fort	45	-22	23.1	0.58	Cumberland	62	14	36.4	4.38
Sisseton, Fort	38	-38	0.9	0.46	Fallston*	67	16	35.3	4.46
Sully, Fort	50	-27	2.7	0.40	Great Falls	68	13	39.0	3.02
Totten, Fort	27	-36	-4.9	0.75	McDonogh	66	11	2.84	
Webster	45	-39	-0.8	0.86	McHenry, Fort	57	20	38.2	2.47
Yates, Fort	30	-33	-1.4	0.86	New Midway*	66	12	38.0	4.55
<i>District of Columbia.</i>					Woodstock	69	10	37.0	3.50
Distributing reserv'	73	20	40.1	3.63	<i>Massachusetts.</i>				
Kendall Green	69	16	33.6	2.73	Amherst a	44	-4	24.2	5.05
Receiving reservoir	71	17	39.4	3.59	Amherst b*	46	-1		4.96
Rock Creek bridge	76	20	42.8		Blue Hill Obs'y	50	0	25.6	5.29
<i>Florida.</i>					Deerfield	50	-8	24.6	4.70
Alva*	88	42	67.1	0.60	Dudley	43	-1	27.4	4.45
Archer	81	35	58.9	0.38	Fall River	50	5	28.9	4.98
Duke	85	36	61.4	0.61	Lincolnton	50	1	30.4	4.02
Meade, Fort*	87	43		0.65	New Bedford	48	4	29.4	6.73
Lima*	87	44	71.6	0.53	North Truro		0		4.15
Manatee	88	46	72.2	0.48	Somerset*	52	0	30.2	3.92
Merritt's Island	85	45	69.4	1.28	Taunton	54	3	30.1	4.93
Tallahassee	82	40	63.0	1.15	Williamstown	49	0	24.0	4.50
<i>Georgia.</i>					Westborough	50	3	29.2	4.49
Athens	73	29	51.1	4.73	Worcester	42	4	25.1	4.89
Forsyth*	84	34	57.5	5.93	<i>Michigan.</i>				
Milledgeville	78	31	56.3	5.35	Birmingham	51	-4		4.50
Quitman*	79	38	64.2	2.95	Brady, Fort	30	-24	12.4	1.20
<i>Idaho.</i>					East Saginaw	54	-6	24.6	5.14
Cosur d'Alone, Fort	53	-12	16.5	2.37	Harrisville*	48	-21	19.3	4.30
Boisé Barracks	55	9	31.9	0.65	Kalamazoo	53	2	27.5	4.85
<i>Illinois.</i>					Laurens	53	3	24.4	5.87
Bloomington	64	1		4.60	Mottville*	50	-4		6.88
Collinsville	72	4	36.6	4.60	Swartz Creek	53	-10	23.0	5.49
Charleston*	67	4	34.9	3.80	Thornville*	54	-8	24.3	3.56
Geneseo	55	-11	24.2	4.77	Traverse City	46	-15		5.94
Jacksonville	64	-2	31.5	2.48	<i>Minnesota.</i>				
Mattson	73	6	38.0	4.25	Minneapolis	42	-28	9.0	2.22
Pekin	56	-4	30.8	6.68	Snelling, Fort	42	-32	8.4	1.38
Peoria	57	-1	32.7	5.45	<i>Missouri.</i>				
Riley	47	-11	21.4	4.82	Central College	71	-1		2.92
Rockford	40	-10	22.6	6.44	Centerville	63	10		5.32
Sandwich	54	-5	27.2	5.41	Conception	59	-16	23.2	2.79
South Evanston	53	-7		4.86	Springfield	72	5	39.0	4.10
Sycamore	46	-8	23.4	4.50	<i>Montana.</i>				
Windsor	69	2	30.3	3.38	Keogh, Fort	48	-49	-7.5	0.26
<i>Indian Territory.</i>					Missoula, Fort	54	-19	11.4	0.98
Gibson, Fort	75	11	43.2	0.81	Shaw, Fort	56	-46		2.4
Reno, Fort	79	3	39.8		<i>Nebraska.</i>				
Supply, Fort	80	-5		0.00	Brownville*	62	-14	23.5	0.93
<i>Indiana.</i>					Crete	64	-14	19.0	0.93
Butlerville	71	15	38.6	8.27	De Soto*	54	-15	17.4	0.81
Fort Wayne*	57	10	33.2	5.45	Freemont	55	-12	18.8	1.14
Jeffersonville	72	19	40.4	8.13	Genoa	60	-17	15.1	0.62
Laconia	62	18	41.1	7.58	Hay Springs	57	-24	14.2	0.41
Lafayette	63	1	31.5	2.94	Lincoln	59	-15	20.1	0.22

Meteorological record of voluntary observers, etc.—Continued.

Stations.	Temperature.			Precipitation.	Stations.	Temperature.			Precipitation.
	Maximum.	Minimum.	Mean.			Maximum.	Minimum.	Mean.	
Nebraska—Cont'd.					Oregon.				
Marquette	54	-18		0.85	Albany*	56	6	32.7	4.50
Niobrara, Fort	59	-24	13.0	1.60	Bandon*	58	18	38.8	5.17
Robinson, Fort	59	-25	18.4	0.50	East Portland*	62	6		9.00
Sidney, Fort	66	-13	20.4	2.00	Eola*	55	6	31.0	4.39
Stockham				0.75	Klamath, Fort	39	-16	22.9	5.88
Tacoma*	58	-17	18.9		La Grande	46	2		0.70
Tecumseh*	56	-13	22.5	2.40	Mount Angel	56	5	34.5	3.72
Nevada.					Pennsylvania.				
Carson City	50	-11	27.5	3.27	Altoona	68	16	39.6	4.40
McDermitt, Fort	42	4	25.3	7.35	Bloomington*	51	2	28.9	3.50
New Hampshire.					Catawissa*				
Antrim	36	-10	19.2	5.77	Dyberry	48	-1	25.9	4.89
Ashland				5.43	Easton				5.79
Belmont				5.88	Franklin*	51	6	29.5	9.24
Berlin Mills	48	-30		5.30	Germantown	63	14		7.62
Bristol				4.89	Grampian Hills*	60	8	30.3	10.20
Lake Village				5.25	Phillipsburg*	66	3	32.1	4.95
Nashua	47	-5	24.6	4.83	Quakertown*	56	9	30.6	5.15
Wier's Bridge				5.35	State College	63	8	30.8	5.04
Woolfborough				5.63	Wellsborough*	50	8	29.8	5.55
Woodstock				7.35	West Chester	63	14	33.3	3.53
New Jersey.					Wysox				
Beverly	67	15	34.9	4.99	Zionsville	52	12	34.8	5.38
Clayton	67	14	35.2	4.95	South Carolina.				
Dover	60	6	29.5	4.81	Aiken	75	30	56.0	3.89
Lakewood	54	18	35.8	4.57	Kirkwood*	71	31	51.6	2.27
Moorestown	67	16	34.4	5.32	Pacolet				5.97
Paterson	63	16	33.0	6.26	Spartanburg*	71	28	48.7	5.32
Readington	64	14	35.7		Statenburg*	74	31	54.1	1.89
Roseland	61	2		6.11	Tennessee.				
South Orange	62	14	32.7	5.07	Ashwood	71	24	47.5	7.20
New Mexico.					Milan				
Bayard, Fort	74	15	43.3	1.51		75	24	48.0	6.75
Belden, Fort	75	39	47.0	0.30	Texas.				
Union, Fort	67	3	34.6		Austin*	80	30	57.1	1.71
Wingate, Fort	59	8	32.7	1.72	Cleburne	76	15	48.0	1.74
New York.					Comfort				
Auburn	45	2	27.0	4.49	Concho, Fort	84	14	50.4	0.10
Brooklyn a	63	15	35.1	4.42	Corsicana				1.11
Brooklyn b	63	13	32.3	5.15	Midland*	79	15	45.8	
Columbus, Fort	60	15	32.5	5.99	McIntosh, Fort	86	37	64.4	0.64
Cooperstown	46	-12	22.5	5.21	New Ulm	81	27	59.2	2.00
Farmerville*	56	8	28.9	2.88	Ringold, Fort	98	39	67.4	0.44
Humphrey	52	3	25.6	7.30	Silver Falls	81	14		1.07
Ithaca	50	4	26.9	4.21	Vermont.				
Le Roy	54	3	24.5	3.42	Brattleborough	45	-6	23.3	5.60
Madison Barracks	48	-8	21.4	1.50	Burlington				1.67
Menands	41	0	23.3	3.40	Charlotte*	43	-10	18.2	3.90
Niagara, Fort	52	7	26.8	4.12	Lunenburg	42	-18	15.1	3.80
North Volney	45	0	22.8		Newport	36	-20	15.0	4.75
Palermo	44	-2	20.9	2.03	Post Mills*	38	-24	14.0	1.60
Palmyra	52	5	26.4		Poultney	42	-13	22.0	4.31
Penn Yan				3.61	Stratford	40	-12	17.5	5.90
Setauket	56	14	32.3	6.00	Virginia.				
Utica	44	-5			Bird's Nest*	73	24	44.4	3.85
West Point	57	5	28.8	5.60	Brington	65	20		4.52
White Plains	49	12	33.3	4.06	Dale Enterprise*	74	17	42.0	4.72
North Carolina.					Marion				
Chapel Hill	79	22	48.1	4.62	Monroe, Fort	67	23	44.5	2.41
Lenoir	74	25		4.70	Rappahannock	59	18	36.1	5.29
Lincolnton	65	27	48.2	5.86	Snowville	65	18		3.00
Raleigh	79	26	49.0	3.75	Summit	72	12	40.0	
Stateville*	70	23	46.4	4.60	University of Va.	64	31	47.2	3.58
Wake Forest	75	20	49.2	4.37	Variety Mills	71	13	40.6	3.91
Weldon	74	22	46.2	3.07	Wytheville	65	16	40.0	3.14
Ohio.					Washington Territory.				
Cleveland	61	9	32.1	7.54	Blakely	54	14	32.7	3.35
College Hill*	68	10	39.6	10.25	Kenewick	62	-10		0.67
Elyria	60	11	31.0	8.46	Spokane, Fort	53	-9	18.2	2.36
Garrettsville	60	3	30.1	7.39	Tacoma	55	5	30.1	4.08
Hiram	59	6	30.2	9.56	Townsend, Fort	58	8	31.7	1.19
Jacksonborough*	57	10	35.1	6.25	West Virginia.				
Napoleon	58	4		5.38	Clarksburg	66	12	41.7	5.19
North Lewisburg	60	8	34.6	5.60	Helvetia*	67	12	42.0	7.68
Portsmouth	70	18	42.0	9.28	Middlebrook	60	5	35.5	
Ruggles	56	10	30.0	5.30	Wisconsin.				
Tiffin	59	9	32.2	6.60	Delaware	44	-12	21.4	5.34
Tiffin	59	9	30.2	6.68	Embarras	38	-25	15.4	4.70
West Milton*	62	12	36.0	10.75	Fond du Lac*	40	-20	18.9	3.52
Wauseon	56	0	28.3	7.19	Madison	44	-17	19.1	4.34
Westerville	60	11	34.6	4.37	Manitowoc	40	-11	21.6	3.55
Yellow Springs	62	10	35.0	5.88	Prairie du Chien	44	-18	19.4	3.54
					Wausau	39	-22	13.8	3.74
					Wyoming.				
					Camp Sheridan	47	-30	16.5	4.65
					Laramie, Fort	62	-20	20.6	0.07
					Washakie, Fort	54	-16	22.8	0.15